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ATTORNEYS AT LAW

May 5, 2008

Ex Parte

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Unlicensed Operation in the TV Broadcast Bands, ET Docket No. 04-186

Dear Ms. Dortch:

On May 2, 2008, Robert Sutton and Pat Carson of TDK Corp., and Edmond Thomas and Paul Margie of Harris, Wiltshire & Grannis LLP met with Julius Knapp, Saurbh Chhabra, Rashmi Doshi, William Hurst, Steven Jones, Ira Keltz, Ahmed Lahjouji, Hung Quang Le, Geraldine Maise, Bruce Romano, and Alan Stillwell of the Office of Engineering Technology regarding the TV white spaces proceeding.

During this meeting, the parties discussed the recent workshop on license-exempt cognitive access to interleaved spectrum hosted by the UK Office of Communications ("Ofcom"), as well as the results of a study prepared for Ofcom by ERA Technology Ltd to help determine appropriate detection levels for white space devices. TDK also provided a presentation on these issues. A copy is attached hereto. Messrs. Sutton, Carson, Thomas, and Margie observed that the information presented at the Ofcom workshop supported the operating parameters proposed by the White Spaces Coalition in this proceeding. Finally, the parties discussed the status of white space device testing and decision making at the FCC.

Pursuant to the Commission's rules, a copy of this notice is being filed electronically in the above-referenced docket. If you require any additional information please contact the undersigned.

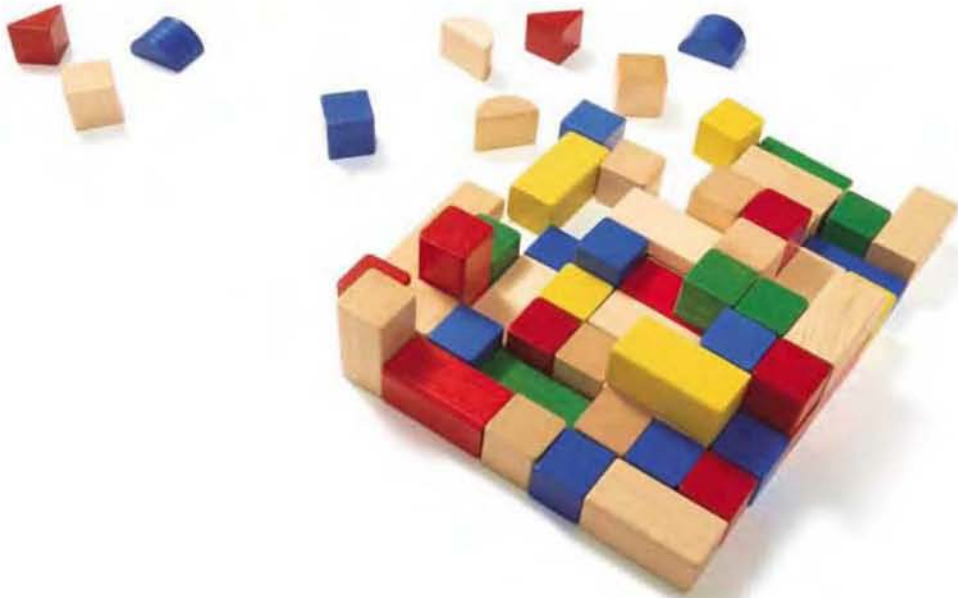
Sincerely yours,

/s/ Paul Margie

Paul Margie

Enc.

cc: meeting participants

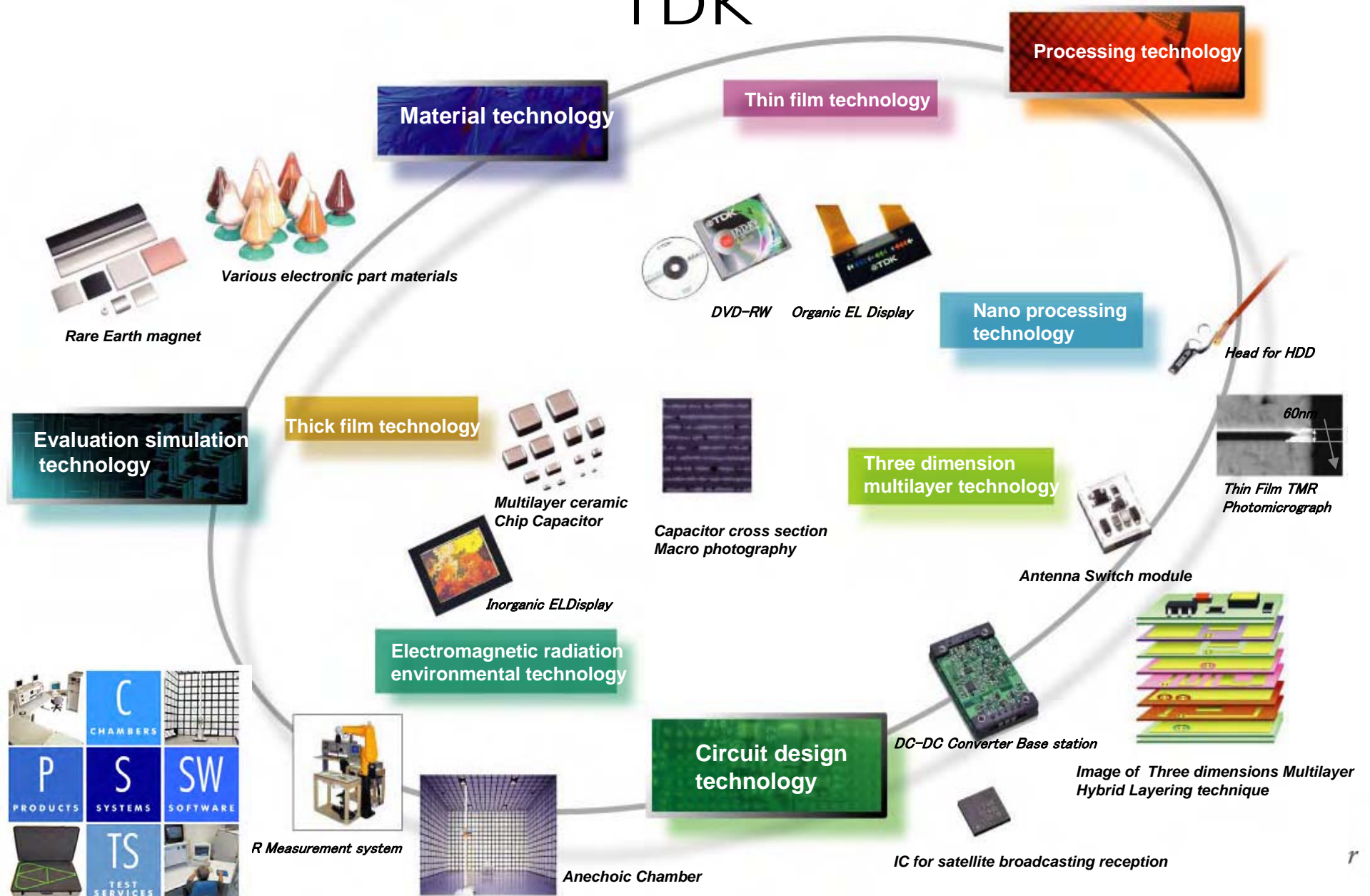


TDK RF Solutions
Austin, TX



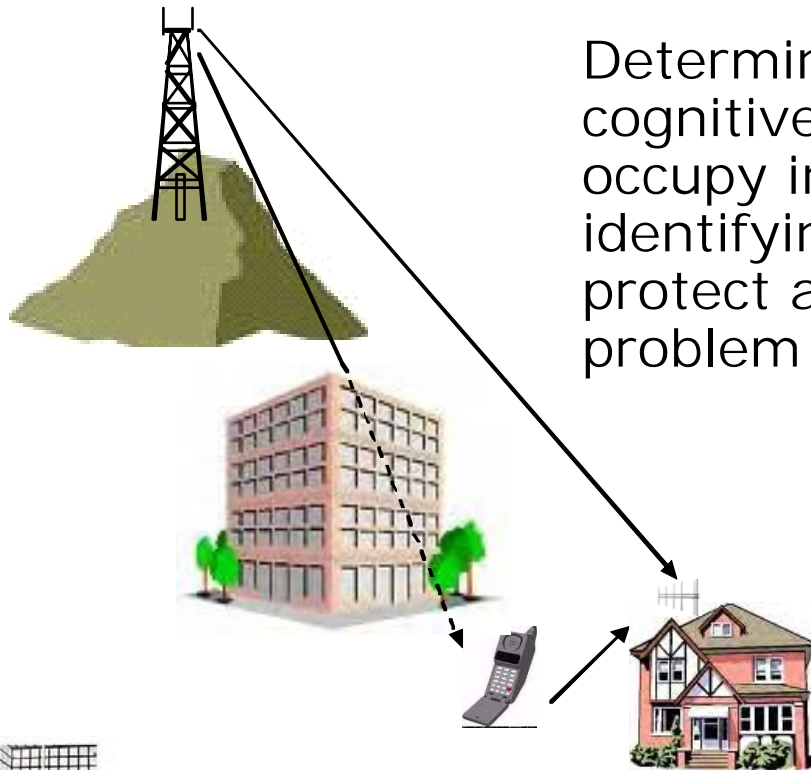


TDK





Goal





Process

- ❖ Step 1: Ofcom consulted an engineering laboratory to perform a study that determines the minimum detection levels needed for a cognitive radio device.
- ❖ Step 2: The laboratory started out by referencing an earlier study which determined the minimum usable signals (MUS) of Digital Terrestrial TV (DTT) and radio microphones in the absence of interference.
- ❖ Step 3: Create a mobile monitoring platform to scan and measure the interleaved spectrum of interest
- ❖ Step 4: Perform hidden node measurements by running field tests at the edge of a DTV reception cell at 10 meter and 2 meter antenna receive heights
- ❖ Step 5: "Calculate" the hidden node margin from the measurement results and analyze the data.





Results and Conclusions

- ❖ MUS DTT reception is -84 dBm at the input of the receiver. This is consistent with the figure suggested by the White Space Coalition and the FCC.
- ❖ The MUS measured for the wireless radio microphone was also around -84 dBm. Consistent with the figure of -80 dBm used by the FCC in testing.
- ❖ Average value of 25 dB is required for the hidden node margin, but in some cases 30 dB or greater may be needed. Consistent with the 30 dB value proposed by the White Space Coalition.
- ❖ Minimum detection level proposed for a cognitive device:

$$\begin{aligned}\text{WSD Detection Level} &= \text{MUS} - \text{Hidden Node Margin} \\ -84 \text{ dBm} - 30 \text{ dB} &= -114 \text{ dBm}\end{aligned}$$

